

CCCTGTCAGTCTTAAGATTCTAGAAGTCGCTGTCCTATACGGAACCCAAAA
 CTCTCACTGTTAATGAAATACCATTTGTCGGGGCGAAGATGTAGCTCAGTGGTAAAATACT -121
 TGCCAGCACACACAAGAATTAGACTTCAACCGTCACCAACTGCCCTGTGTAGGACGGTCCG
 GTCAGTGAAAGAGAATATTGTCTGCAATACTCTAATGACATCTGTCTGTGTTTCATCTGAA -1

SP

1 MetPheHisLeuLysHisSerSerLeuThrValGlyProPheIleSerValMetIleLeu
 ATGTTCCATTTAAACACAGCAGCCTTACTGTTGGACCATTTATCTCAGTAATGATTCTG
 LeuArgPheLeuCysThrGlyArgAsnAsnSerLysGlyArgSerLeuIleGlyArgLeu
 CTCCGCTTTCTTTGTACAGGACGCAACAACAGTAAAGGAAGAAGTCTTATTGGCAGATTA 120

41 GluThrGlnProProIleThrGlyLysGlyValProValGluProGlyPheSerIleAsp
 GAAACCCAGCCTCCAATCACTGGGAAAGGGGTTCCGGTAGAACCAGGCTTTTCCATCGAT
 GluPheSerAlaSerIleLeuThrGlyLysLeuThrThrValPheLeuProValValTyr
 GAGTTCTCTGCGTCCATCTCACCAGGGAAGCTGACCACGGTCTTTCTTCCGGTCGTCTAC 240

I

81 IleIleValPheValIleGlyLeuProSerAsnGlyMetAlaLeuTrpIlePheLeuPhe
 ATTATTGTGTTGTGATTGGTTTGCCAGTAATGGCATGGCCCTCTGGATCTTCTTTTC -
 ArgThrLysLysLysHisProAlaValIleTyrMetAlaAsnLeuAlaLeuAlaAspLeu
 CGAACGAAGAAGAAACACCCCGCCGTGATTACATGGCCAACCTGGCCTTGGCCGACCTC 360

II

121 LeuSerValIleTrpPheProLeuLysIleSerTyrHisLeuHisGlyAsnAsnTrpVal
 CTCTCTGTCATCTGGTTCCCCCTGAAGATCTCTACCACCTACATGGCAACAACCTGGGTC
 TyrGlyGluAlaLeuCysLysValLeuIleGlyPhePheTyrGlyAsnMetTyrCysSer
 TACGGGGAGGCCCTGTGCAAGGTGCTCATTGGCTTTTCTATGGTAACATGTATTGCTCC 480

III

161 IleLeuPheMetThrCysLeuSerValGlnArgTyrTrpValIleValAsnProMetGly
 ATCCTCTTCATGACCTGCCTCAGCGTGCAGAGGTACTGGGTGATCGTGAACCCCATGGGA
 HisProArgLysLysAlaAsnIleAlaValGlyValSerLeuAlaIleTrpLeuLeuIle
 CACCCAGGAAGAAGGCAACATCGCCGTTGGCGTCTCCTTGGCAATCTGGCTCCTGATT 600

IV

FIG. 1A

201 PheLeuValThrIleProLeuTyrValMetLysGlnThrIleTyrIleProAlaLeuAsn
TTTCTGGTCACCATCCCTTTGTATGTCATGAAGCAGACCATCTACATTCCAGCATTGAAC

IleThrThrCysHisAspValLeuProGluGluValLeuValGlyAsnMetPheAsnTyr
ATCACCACCTGTCACGATGTGCTGCCTGAGGAGGTATTGGTGGGGGACATGTTCAATTAC 720

241 PheLeuSerLeuAlaIleGlyValPheLeuPheProAlaLeuLeuThrAlaSerAlaTyr
TTCCTCTCACTGGCCATTGGAGTCTTCTGTTCCTGTTCCCGGCCCTCCTTACTGCATCTGCCTAC

ValLeuMetIleLysThrLeuArgSerSerAlaMetAspGluHisSerGluLysLysArg
GTGCTCATGATCAAGACGCTCCGCTCTTCTGCTATGGATGAACACTCAGAGAACAAAAGG 840

281 GlnArgAlaIleArgLeuIleIleThrValLeuAlaMetTyrPheIleCysPheAlaPro
CAGAGGGCTATCCGACTCATCATACCGTGCTGGCCATGTACTTCATCTGCTTTCGTCCT

SerAsnLeuLeuLeuValValHisTyrPheLeuIleLysThrGlnArgGlnSerHisVal
AGCAACCTTCTGCTCGTAGTGCATTATTTCTTAATCAAACCCAGAGGCAGAGCCACGTC 960

321 TyrAlaLeuTyrLeuValAlaLeuCysLeuSerThrLeuAsnSerCysIleAspProPhe
TACGCCCTCTACCTTGTGCGCCTCTGCCTGTCGACCCTCAACAGCTGCATAGACCCCTT

ValTyrTyrPheValSerLysAspPheArgAspHisAlaArgAsnAlaLeuLeuCysArg
GTCTATTACTTTGTCTCAAAAGATTTTCAGGGATCACGCCAGAAACGCGCTCCTCTGCCGA 1080

361 SerValArgThrValAsnArgMetGlnIleSerLeuSerSerAsnLysPheSerArgLys
AGTGTCCGCACTGTGAATCGCATGCAAATCTCGCTCAGCTCCAACAAGTTCTCCAGGAAG
GATGTCAAGCCTGCTTGATGATGATGATGATGATGGTGTGTGTGTG 1246

SerGlySerTyrSerSerSerSerThrSerValLysThrSerTyr
TCCGGCTCCTACTCTTCAAGCTCAACCAAGTGTTAAACCTCCTACTGAGCTGTACCTGAG 1200

FIG. 1B

CGCTCCAGGCTGGGTGACAGCGAGACCCTGTCTCATAAATTAAAAATGAATAA

SP

MetAsnValLeuSerPheGluGlnThrSerValThrAlaGluThrPheIleSerValMet
ATGAATGTACTTTTCATTTGAACAAACCAGTGTTACTGCTGAAACATTTATTTCTGTAATG

▼ ▼

ThrLeuValPheLeuSerCysThrGlyThrAsnArgSerSerLysGlyArgSerLeuIle -1
ACCCTTGCTTCTTTCTTGTACAGGAACCAATAGATCCTCTAAAGGAAGAAGCCTTATT 120

GlyLysValAspGlyThrSerHisValThrGlyLysGlyValThrValGluThrValPhe
GGTAAGGTTGATGGCACATCCACGTCACCTGGAAAAGGAGTTACAGTTGAAACAGTCTTT

SerValAspGluPheSerAlaSerValLeuThrGlyLysLeuThrThrValPheLeuPro 240
TCTGTGGATGAGTTTTCTGCATCTGTCCTCACTGGAAAACCTGACCACTGTCTTCTTCCA

I

IleValTyrThrIleValPheValValGlyLeuProSerAsnGlyMetAlaLeuTrpVal
ATTGTCTACACAATTGTGTTTGTGGTGGGTTTGCCAAGTAACGGCATGGCCCTGTGGGTC

PheLeuPheArgThrLysLysLysHisProAlaValIleTyrMetAlaAsnLeuAlaLeu 360
TTTCTTTTCCGAACCTAAGAAGAAGCACCTGCTGTGATTTACATGGCCAATCTGGCCTTG

II

AlaAspLeuLeuSerValIleTrpPheProLeuLysIleAlaTyrHisIleHisGlyAsn
GCTGACCTCCTCTCTGTCTCTGTTCCCTTGAAGATTGCCTATCACATACATGGCAAC

AsnTrpIleTyrGlyGluAlaLeuCysAsnValLeuIleGlyPhePheTyrGlyAsnMet 480
AACTGGATTTATGGGAAGCTCTTTGTAATGTGCTTATTGGCTTTTTCTATGGCAACATG

III

TyrCysSerIleLeuPheMetThrCysLeuSerValGlnArgTyrTrpValIleValAsn
TACTGTTCCATTCTCTTCATGACCTGCCTCAGTGTGCAGAGGTATTGGGTCATCGTGAAC

ProMetGlyHisSerArgLysLysAlaAsnIleAlaIleGlyIleSerLeuAlaIleTrp 600
CCCATGGGGCACTCCAGGAAGAAGGCAAACATTGCCATTGGCATCTCCCTGGCAATATGG

FIG.2A

IV
LeuLeuIleLeuLeuValThrIleProLeuTyrValValLysGlnThrIlePheIlePro
CTGCTGATTCTGCTGGTCACCATCCCTTTGTATGTCGTGAAGCAGACCATCTTCATTCT
↓
AlaLeuAsnIleThrThrCysHisAspValLeuProGluGlnLeuLeuValGlyAspMet 720
GCCCTGAACATCACGACCTGTCATGATGTTTTGCCTGAGCAGCTCTTGGTGGGAGACATG
V
PheAsnTyrPheLeuSerLeuAlaIleGlyValPheLeuPheProAlaPheLeuThrAla
TTCAATTACTTCCTCTCTCTGGCCATTGGGGTCTTTCTGTTCCAGCCTTCCTCACAGCC
SerAlaTyrValLeuMetIleArgMetLeuArgSerSerAlaMetAspGluAsnSerGlu 840
TCTGCCTATGTGCTGATGATCAGAATGCTGCGATCTTCTGCCATGGATGAAACTCAGAG
VI
LysLysArgLysArgAlaIleLysLeuIleValThrValLeuAlaMetTyrLeuIleCys
AAGAAAAGGAAGAGGGCCATCAAACCTATTGTCAGTCTGCTGGCCATGTACCTGATCTGC
PheThrProSerAsnLeuLeuLeuValValHisTyrPheLeuIleLysSerGlnGlyGln 960
TTCACTCCTAGTAACCTTCTGCTTGTGGTGCATTATTTTCTGATTAAAGAGCCAGGGCCAG
VII
SerHisValTyrAlaLeuTyrIleValAlaLeuCysLeuSerThrLeuAsnSerCysIle
AGCCATGTCTATGCCCTGTACATTGTAGCCCTCTGCCTCTCTACCCTTAACAGCTGCATC
AspProPheValTyrTyrPheValSerHisAspPheArgAspHisAlaLysAsnAlaLeu 1080
GACCCCTTTGTCTATTACTTTGTTTCACATGATTTTCAGGGATCATGCAAAGAACGCTCTC
LeuCysArgSerValArgThrValLysGlnMetGlnValSerLeuThrSerLysLysHis
CTTTGCCGAAGTGTCCGCACTGTAAAGCAGATGCAAGTATCCCTCACCTCAAAGAAACAC
SerArgLysSerSerSerTyrSerSerSerSerThrThrValLysThrSerTyr *
TCCAGGAAATCCAGCTCTTACTCTTCAAGTTCAACCACTGTAAAGACCTCCTATTGAGTT 1200

FIG. 2B

Mouse C140	M--FHLKHS	LTIVGPFISVM	ILRLFLCTGR	NNSHKGRSLI	GRLETQPPIT	47
Human C140	MNVLSFEQTS	VTAETTFISVM	ILVFLSCTGT	NRSSKGRSLI	GKVDGTSHVT	50
Mouse C140	GKGVFVEPGF	SIIDEFSASIL	TCKLTTVFLP	WYIIVFVIG	LPSNGMALWI	97
Human C140	GKGVIVEIVE	SMDEFSASML	TGKLTTVFLP	IVYIIVFVWG	LPSNGMALWV	100
Mouse C140	FLFRTKKKHP	AVIYMANLAL	ADLLSVIWF	LKISYHLHGN	NWYGEALCK	147
Human C140	FLFRTKKKHP	AVIYMANLAL	ADLLSVIWF	LKIAYHLHGN	NWYGEALCN	150
Mouse C140	VLIGFFYGNM	YCSILFMTCL	SVQRYWVIVN	PMGHPRKKAN	IAMGVSIAIW	197
Human C140	VLIGFFYGNM	YCSILFMTCL	SVQRYWVIVN	PMGHSRKKAN	IAIGISIAIW	200
Mouse C140	LLIFLVTIPL	YVMKQTIYIP	ALNITTCHDV	LPEEVLVGDM	FNYFLSLAIG	247
Human C140	LLILLVTIPL	YVMKQTIPI	ALNITTCHDV	LPEQLLVGDM	FNYFLSLAIG	250
Mouse C140	VFLFPALTA	SAYVLMIKL	RSSAMDEHSE	KKRQRAIRLI	ITVLAMYFIC	297
Human C140	VFLFPALTA	SAYVLMIRL	RSSAMDENSE	KKRKRAIKLI	MTVLAMYLIC	300
Mouse C140	FAPSNLLL	VVHYFLIKIQ	QROSHVYALY	LVALCLSTLN	SCIDPFVYYY	FVSK 347
Human C140	FIPSNLLL	VVHYFLIKSQ	QGO SHVYALY	IVALCLSTLN	SCIDPFVYYY	FVSH 350
Mouse C140	DFRDHARNAL	LCRSVRTVNR	MQISLSNKF	SRKSGSYSSS	STISVKTSY	395
Human C140	DFRDHARNAL	LCRSVRTVKQ	MQMSLSNKH	SRKSSSYSSS	STIVVKTSY	398

FIG.3

Applicants: Johan Sundelin, et al.

Title: RECOMBINANT C140 RECEPTOR, ITS AGONISTS AND ANTAGONISTS, AND NUCLEIC ACIDS ENCODING THE RECEPTOR

Attorney/Agent: Jean M. Silveri

Docket No.: MPI93-006CP1DV1ACN1DV1M

Sheet 6 of 16

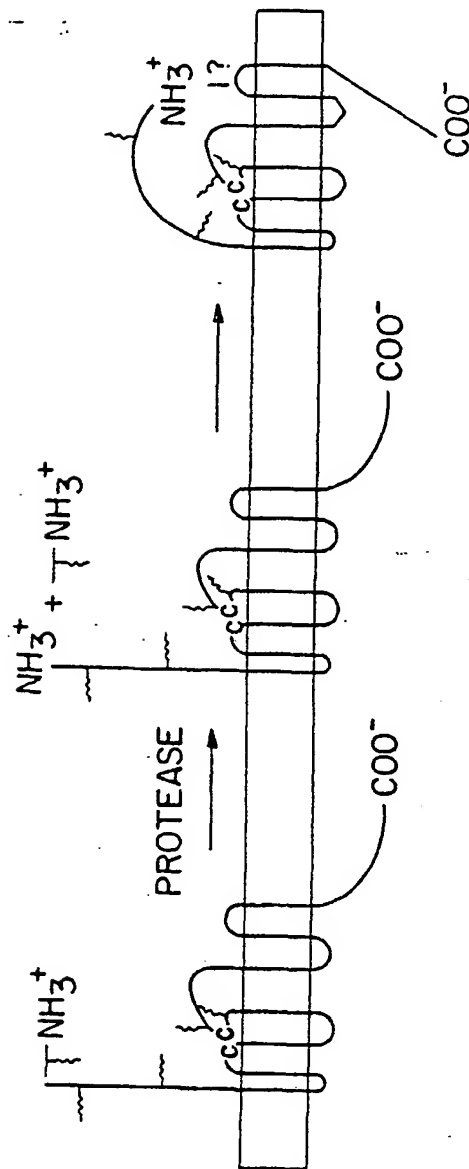


FIG. 4

	SP		
C140	MFHLKHSSLTVGPFISVMILLRFLCTGRNNSK-----GRSLIGRLETQP-----	44	
HSTHRR	MGPRRLLLVAAACFSLCGPLLSARTRARRPESKATNATLDPRSFLLRNPNDKYEPEWDEE	60	
			I
C140	-----PITGKGVPEPGFSIDFSASILIGKLTTFVLPVWYIIVFVIGLPSN	91	
HSTHRR	KNESGLTEYRLVSINKSSPLQKQLPAFISEDAGYLTSWLTLFVPSVYTGFWWSLPLN	120	
			II
C140	GMALWIFLFRTKKKHPAVIYMANLALADLLSVIWFPLKISYHLHGNNWVYGEALCKVLIG	151	
HSTHRR	IMAIWVFIKMKVKKPAVWYMLHLATADVLFVSVLPFKISYYFSGSDWQFGSELCRFVTA	180	
			III
C140	FFYGNMYCSILFMTCLSVQRYWVIVNPM--GHPRKKANIAVGVSLAIWLLIFLVTIPLYVM	210	
HSTHRR	AFYCNMYASILLMTVTSIDRFLAVVYPMQSLSWRTLGRASFTCLAIWALATAGVVPLVLK	240	
			IV
C140	KQTIYIPALNITTCCHDVLPEEVLVGDMMFNFLSLAIGVFLFPALLTASAYVLMIKTLRSS	270	
HSTHRR	EGTIQVPGLNITTCCHDVNETLLEGYYAYYFSAFSAVFFVPLIISTVCYVSIJRCLSSS	300	
			V
C140	AMDEHSEKKRQRAIRLIITVLAMYFICFAPSNLLLVVHY-FLIKTQRQSHVYALYLVALC	329	
HSTHRR	AVANRSKKSR--ALFLSAAVFCIFIICFGPTNVLIIAHYSFLSHTSTTEAAYFAYLLCVC	358	
			VI
C140	LSTLNSCIDPFVYFVSKDFRDHARNALLCRSVRTVNRMQISLSSNKF SRKSGSYSSST	389	
HSTHRR	VSSISSCIDPLIYYASSECQRYVYSILCCKESSDPSSYSSGQLMASKMDTCCSSNLNNS	418	
			VII
C140	SVKTSY-	395	
HSTHRR	IYKKLLT	426	

FIG.5

Applicants: Johan Sundelin, et al.

Title: RECOMBINANT C140 RECEPTOR, ITS AGONISTS AND
ANTAGONISTS, AND NUCLEIC ACIDS ENCODING THE RECEPTOR

Attorney/Agent: Jean M. Silveri

Docket No.: MPI93-006CP1DV1ACN1DV1M

Sheet 8 of 16

28 S →

18 S →



FIG. 6

BLOOD PRESSURE

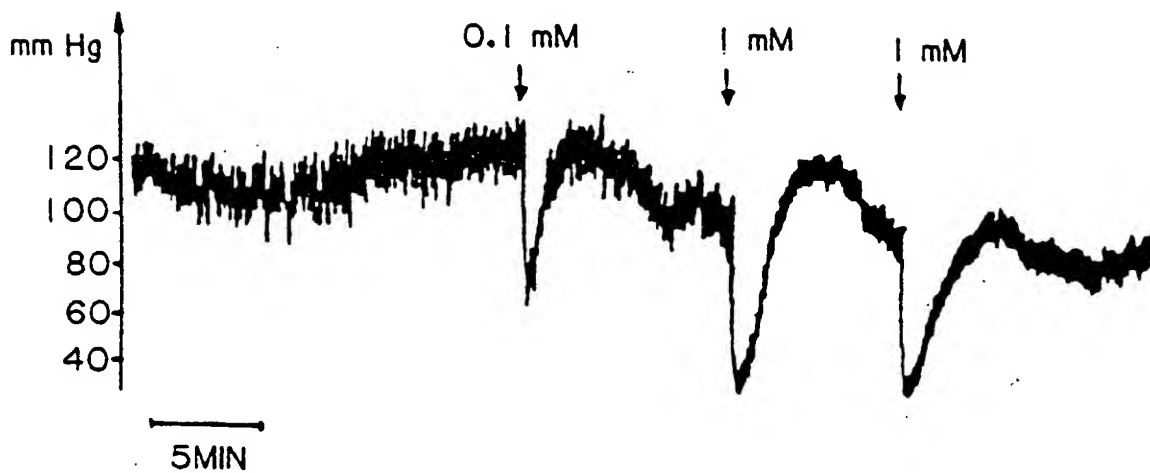


FIG. 7

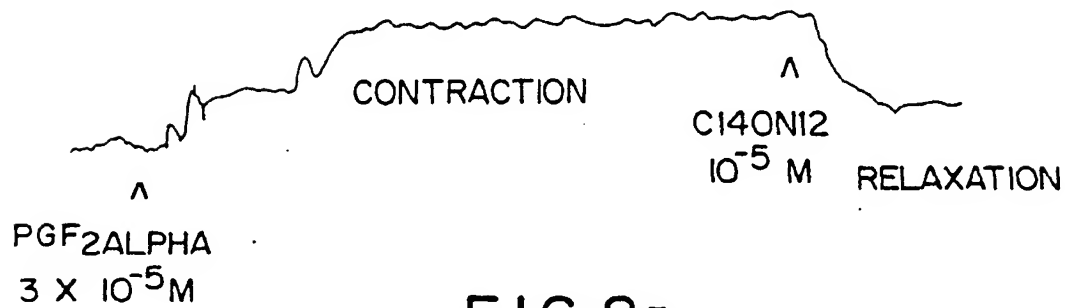


FIG. 8a

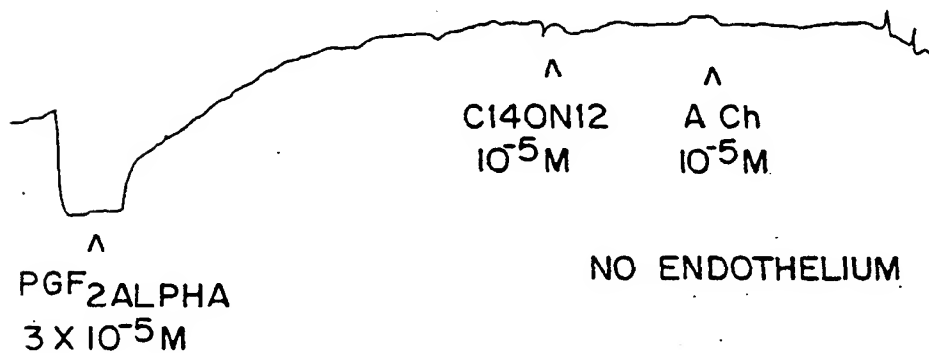


FIG. 8b

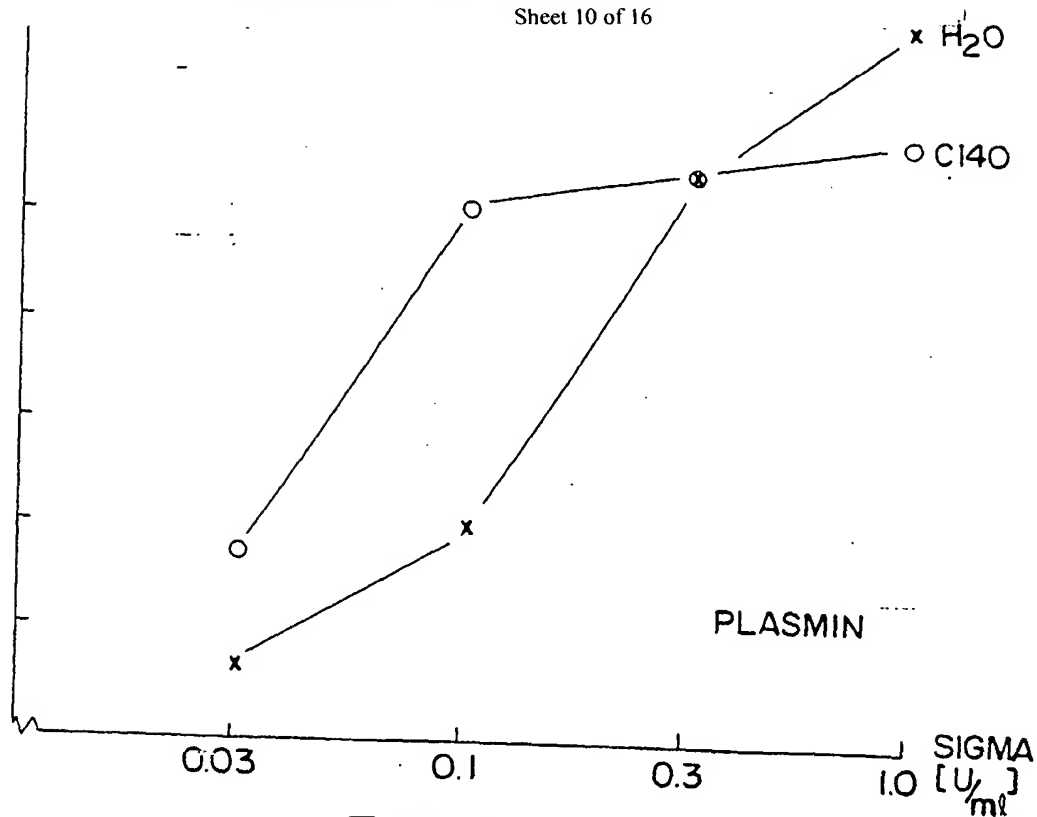


FIG. 9a

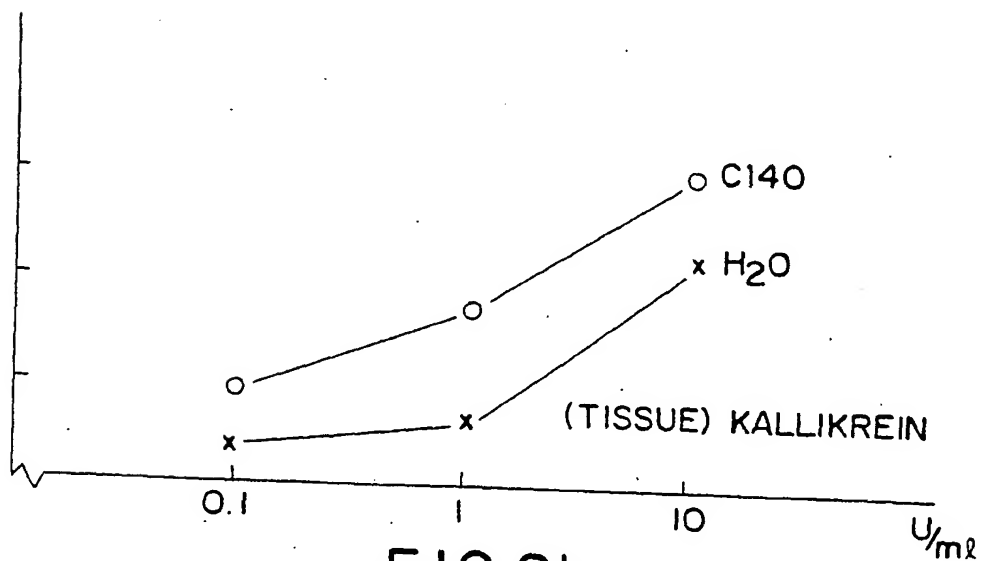


FIG. 9b

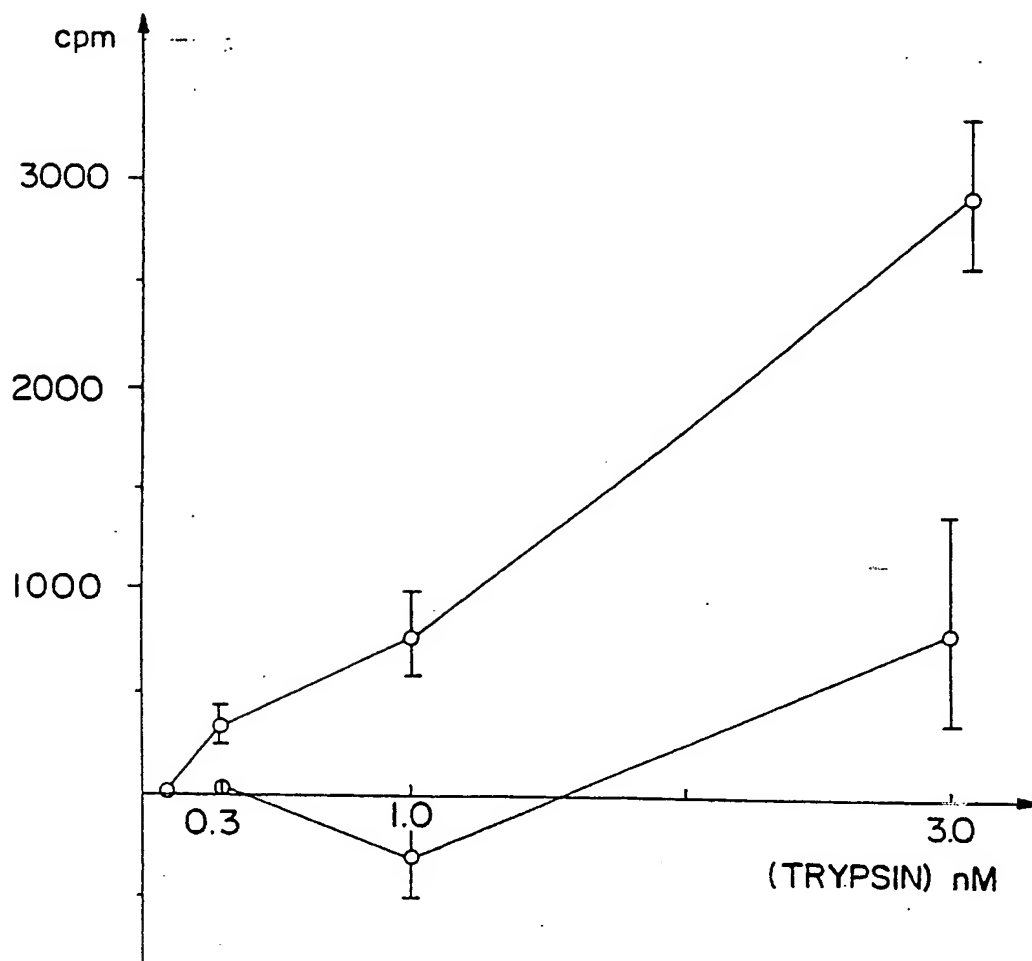


FIG.9c

CCCTGTGCTCAGAGTAGGGCTCCGAGTTTCTGAACCACTGGTGGCGGATTGCCCGCCCGCC
CCACGTCCGGGGATGCGAAGTCTCAGCCTGGCGTGGCTGCTGGGAGGTATCACCTTCTG
M R S L S L A W L L G G I T L L
GCGGCCTCGGTCTCCTGCAGCCGGACCGAGAACCTTGACCGGGACGCAACAACAGTAA
A A S V S C S R T E N L A P G R N N S K
GGAAGAAGTCTTATTGGCAGATTAGAAACCCAGCCTCCAATCACTGGGAAAGGGGTCCG
G R S L I G R L E T Q P P I T G K G V P
GTAGAACCAGGCTTTTTCCATCGATGAGTTCTCTGCGTCCATCCTCACCGGGAAGCTGACC
V E P G F S I D E F S A S I L T G K L T
ACGGTCTTTCTTCCGGTCTACATTATTGTGTTTGTGATTGGTTTGCCAGTAATGGC
T V F L P V V Y I I V F V I G L P S N G
ATGGCCCTCTGGATCTTCTTTTCCGAACGAAGAAGAAACACCCCGCCGTGATTTACATG
M A L W I F L F R T K K K H P A V I Y M
GCCAACCTGGCCTTGGCCGACCTCCTCTCTGTCATCTGGTTCCCCCTGAAGATCTCCTAC
A N L A L A D L L S V I W F P L K I S Y
CACCTACATGGCAACAACCTGGGTCTACGGGGAGGCCCTGTGCAAGGTGCTCATTGGCTTT
H L H G N N W V Y G E A L C K V L I G F
TTCTATGGTAACATGTATTGCTCCATCCTCTTCATGACCTGCCTCAGCGTG CAGAGGTAC
F Y G N M Y C S I L F M T C L S V Q R Y
TGGGTGATCGTGAACCCCATGGGACACCCAGGAAGAAGGCAAACATCGCCGTTGGCGTC
W V I V N P M G H P R K K A N I A V G V
TCCTTGGCAATCTGGCTCCTGATTTTTCTGGTCACCATCCCTTTGTATGTCATGAAGCAG
S L A I W L L I F L V T P I L Y V M K Q
ACCATCTACATTCCAGCATTGAACATCACCACTGTACGATGTGCTGCCTGAGGAGGTA
T I Y I P A L N I T T C H D V L P E E V
TTGGTGGGGGACATGTTCAATTACTTCTCTCACTGGCCATTGGAGTCTTCTGTTCCCG
L V G D M F N Y F L S L A I G V F L F P
GCCCTCCTTACTGCATCTGCCTACGTGCTCATGATCAAGACGCTCCGCTCTTCTGCTATG
A L L T A S A Y V L M I K T L R S S A M
GATGAACACTCAGAGAAGAAAAGGCAGAGGGCTATCCGACTCATCATCACCGTGCTGGCC
D E H S E K K R Q R A I R L I I T V L A
ATGTACTTCATCTGCTTTGCTCCTAGCAACCTTCTGCTCGTAGTGCATTATTTCTAATC
M Y F I C F A P S N L L L V V H Y F L I
AAAACCCAGAGGCAGAGCCACGTCTACGCCCTCTACCTTGTGCGCCCTCTGCCTGTGACCC
K T Q R Q S H V Y A L Y L V A L C L S T
CTCAACAGCTGCATAGACCCCTTTGTCTATTACTTTGTCTCAAAAGATTTACGGGATCAC
L N S C I D P F V Y Y F V S K D F R D H

FIG. 10A

FIG. 10B

10	20	30	40	50	60	
123456789012345678901234567890123456789012345678901234567890						
CAAAGAATTGTAATACGACTCACTATAGGGCGAATTCGGATCCAGGAGGATGCGGAGCCC						
				MetArgSerPr		
70	80	90	100	110	120	
123456789012345678901234567890123456789012345678901234567890						
CAGCGCGGCGTGGCTGCTGGGGGCCGCCATCCTGCTAGCAGCCTCTCTCTCCTGCAGTGG						120
oSerAlaAlaTrpLeuLeuGlyAlaAlaIleLeuLeuAlaAlaSerLeuSerCysSerGI						
CACCATCCAAGGAACCAATAGATCCTCTAAAGGAAGAAGCCTTATTGGTAAGGTTGATGG						
yThrIleGlnGlyThrAsnArgSerSerLysGlyArgSerLeuIleGlyLysValAspGI						
CACATCCACGTCACTGGAAAAGGAGTTACAGTTGAAACAGTCTTTTCTGTGGATGAGTT						240
yThrSerHisValThrGlyLysGlyValThrValGluThrValPheSerValAspGluPh						
TTCTGCATCTGTCTCGCTGGAAAAGTACCCTGTCTTCTTCCAATTGTCTACACAAT						
eSerAlaSerValLeuAlaGlyLysLeuThrThrValPheLeuProIleValTyrThrII						
TGTGTTTTCGGTGGGTTTGCCAAGTAACGGCATGGCCCTATGGGTCTTTCTTTTCCGAAC						360
eValPheAlaValGlyLeuProSerAsnGlyMetAlaLeuTrpValPheLeuPheArgTh						
TAAGAAGAAGCACCTGCTGTGATTTACATGGCCAATCTGGCCTTGGCTGACCTCCTCTC						
rLysLysLysHisProAlaValIleTyrMetAlaAsnLeuAlaLeuAlaAspLeuLeuSe						
TGTCATCTGGTTCCCTTGAAGATTGCCTATCACATACATGGCAACAACTGGATTTATGG						480
rValIleTrpPheProLeuLysIleAlaTyrHisIleHisGlyAsnAsnTrpIleTyrGI						
GGAAGCTCTTTGTAATGTGCTTATTGGCTTTTTCTATCGCAACATGTACTGTTCCATTCT						
yGluAlaLeuCysAsnValLeuIleGlyPhePheTyrGlyAsnMetTyrCysSerIleLu						
CTTCATGACCTGCCTCAGTGTGCAGAGGTATTGGGTCATCGTGAACCCCATGGGGCACTC						600
uPheMetThrCysLeuSerValGlnArgTyrTrpValIleValAsnProMetGlyHisSe						
CAGGAAGAAGGCAAACATTGCCATTGGCATCTCCCTGGCAATATGGCTGCTGACTCTGCT						
rArgLysLysAlaAsnIleAlaIleGlyIleSerLeuAlaIleTrpLeuLeuThrLeuLe						
GGTCACCATCCCTTTGTATGTCGTGAAGCAGACCATCTTCATTCCCTGCCCTGAACATCAC						720
uValThrIleProLeuTyrValValLysGlnThrIlePheIleProAlaLeuAsnIleTh						

FIG.IIA

GACCTGTCATGATGTTTTGCCTGAGCAGCTCTTGGTGGGAGACATGTTCAATTACTTCCT
rThrCysHisAspValLeuProGluGlnLeuLeuValGlyAspMetPheAsnTyrPheLe
CTCTCTGGCCATTGGGGTCTTTCTGTTCCCAGCCTTCCTCACAGCCTCTGCCTATGTGCT 840
uSerLeuAlaIleGlyValPheLeuPheProAlaPheLeuThrAlaSerAlaTyrValLe
GATGATCAGAATGCTGCGATCTTCTGCCATGGATGAAAACTCAGAGAAGAAAAGGAAGAG
uMetIleArgMetLeuArgSerSerAlaMetAspGluAsnSerGluLysLysArgLysAr
GGCCATCAAACCTCATTGTCACTGTCCTGGGCATGTACCTGATCTGCTTCACTCCTAGTAA 960
gAlaIleLysLeuIleValThrValLeuGlyMetTyrLeuIleCysPheThrProSerAs
CCTTCTGCTTGTGGTGCATTATTTTCTGATTAAGAGCCAGGGCCAGAGCCATGTCTATGC
nLeuLeuLeuValValHisTyrPheLeuIleLysSerGlnGlyGlnSerHisValTyrAl
CCTGTACATTGTAGCCCTCTGCCTCTCTACCCTTAACAGCTGCATCGACCCCTTTGTCTA 1080
aLeuTyrIleValAlaLeuCysLeuSerThrLeuAsnSerCysIleAspProPheValTy
TTACTTTGTTTTCACATGATTTACGGGATCATGCAAAGAACGCTCTCCTTTGCCGAAGTGT
rTyrPheValSerHisAspPheArgAspHisAlaLysAsnAlaLeuLeuCysArgSerVa
CCGCACTGTAAAGCAGATGCAAGTACCCCTCACCTCAAAGAAACACTCCAGGAAATCCAG 1200
lArgThrValLysGlnMetGlnValProLeuThrSerLysLysHisSerArgLysSerSe
CTCTTACTCTTCAAGTTCAACCACTGTTAAGACCTCCTATTGAGTTTTCCAGGTCCTCAG
rSerTyrSerSerSerSerThrThrValLysThrSerTyr
ATGGGAATTGCACAGTAGGATGTGGAACCTGTTTAATGTTATGAGGACGTGTCTGTTATT 1320
TCCGGATCCAGATCTTATTAAGCAGAACTTGTTTATTGCAGCTTATAATGGTTACAAAT
AAAGCAATAGCATCACAAATTTACAAATAAAGC 1414

FIG. IIB



FIG.12

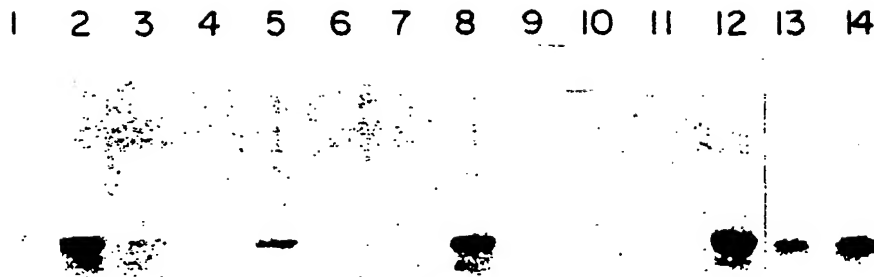


FIG.13